



QSD004 User's Manual



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Chapter 1: DVR Features

- 4 Channel BNC Camera Input
- 1 Channel BNC Video Output
- Video Source Option: NTSC / PAL
- Motion Detection with Sensitivity and Area Settings
- Time Schedule Recording / Motion Triggered Recording
- One ATA-100 Hard Disk Interface
- USB 2.0 Back up to computer
- Remote Control

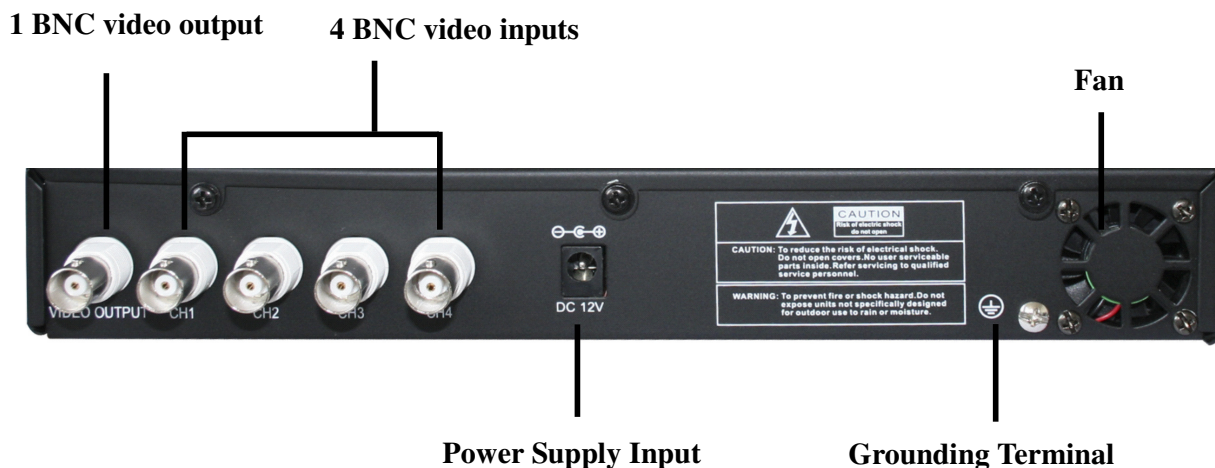
Chapter 2: Layout

2.1 Front Panel



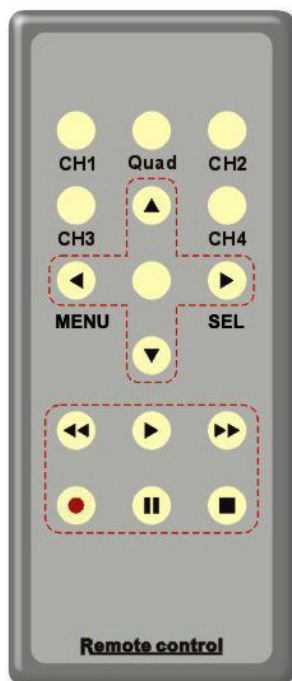
CH1 #1	Channel #1	■ Stop #10	Stop recording / playing
CH2 #2	Channel #2	● REC #11	Record
CH3 #3	Channel #3	Menu/Esc #12	Enter / exit setup menu
CH4 #4	Channel #4	SEL/Edit #13	Select / modify item
Quad #5	Quad View	▲ Up #14	Move up / left cursor
◀◀ REW #6	Rewind	▼ Down #15	Move down / right cursor
Pause #7	Pause	PWR #16	Power indicator LED
▶ Play #8	Play recorded video	HDD #17	Hard disk indicator LED
▶▶ FWD #9	Forward		

2.2 Rear Panel



USB Port is located on the right side of the case.

2.3 Remote Control



CH1	Select or enlarge Channel #1
CH2	Select or enlarge Channel #2
CH3	Select or enlarge Channel #3
CH4	Select or enlarge Channel #4
Quad	Quad View
◀◀	Rewind
▶	Play recording list
▶▶	Forward
●	Record
	Pause
■	Stop recording / playing back
Menu	Enter or exit setup menu
▲	Move up / left cursor
SEL	Select / modify item
▼	Move down / right cursor

Chapter 3: Installation (optional)

3.1 Installing Hard Drive

1. Unplug the power supply. Don't install or uninstall HDD when DVR is on!!
2. Carefully open the DVR case.
3. Connect the power cord and data cable to hard disk drive.

The 4 pin connection is the DC power cable for HDD, and the wider cable is the standard hard drive IDE type connection.

Make sure the HDD is set as MASTER according to the hard drive manual.

4. Carefully replace the case cover.

3.2 Connecting Camera and Monitor

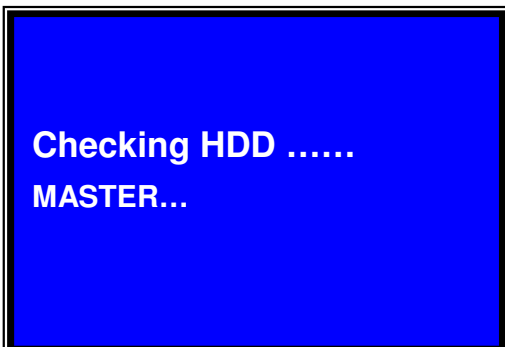
There are 4 camera inputs and 1 video output with BNC connectors (*Refer to 2.2 Rear Panel*). Attach the cable from each of the cameras to one of the BNC video input ports. Attach a RCA video cable (not included) to the video out put port on the DVR using a RCA to BNC adapter (included) and to a RCA video in port on the TV.

3.3 Connecting Power Supply

Please only use the power adapter supplied with the DVR. The standard power supplied to the DVR is DC 12 Volts, 3 Amps.

Chapter 4: System Boot

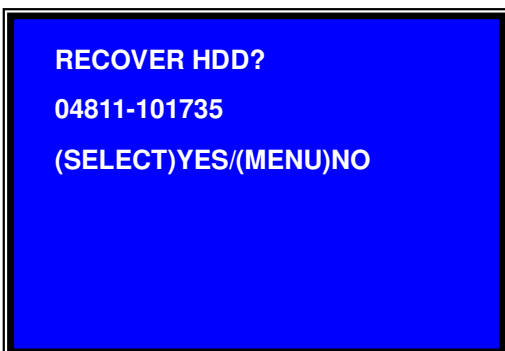
4.1 Detecting Installed Hard Drive



After connecting the power, the system will boot-up and detect the installed hard drive.

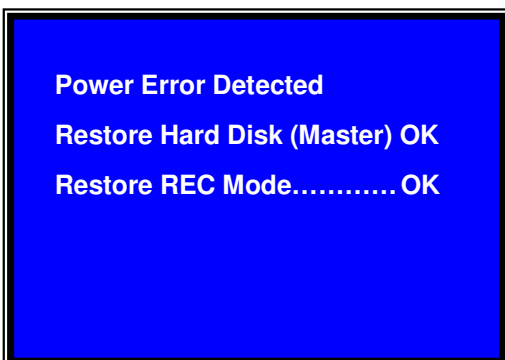
On the screen it will show the hard drive information.

4.2 Recovering Lost Data



A power error can cause data to be lost, and the DVR system can automatically recover lost data after power is reconnected.

4.3 Restore Recording Feature



If a power error occurs during the recording process, the system will automatically resume recording after power is reconnected.

4.4 Main Screen



While the DVR is running, the monitor will display the information from the cameras as follows:

Upper left: Percentage of space used on hard drive.

Middle: Channel number (CH1 through CH4)

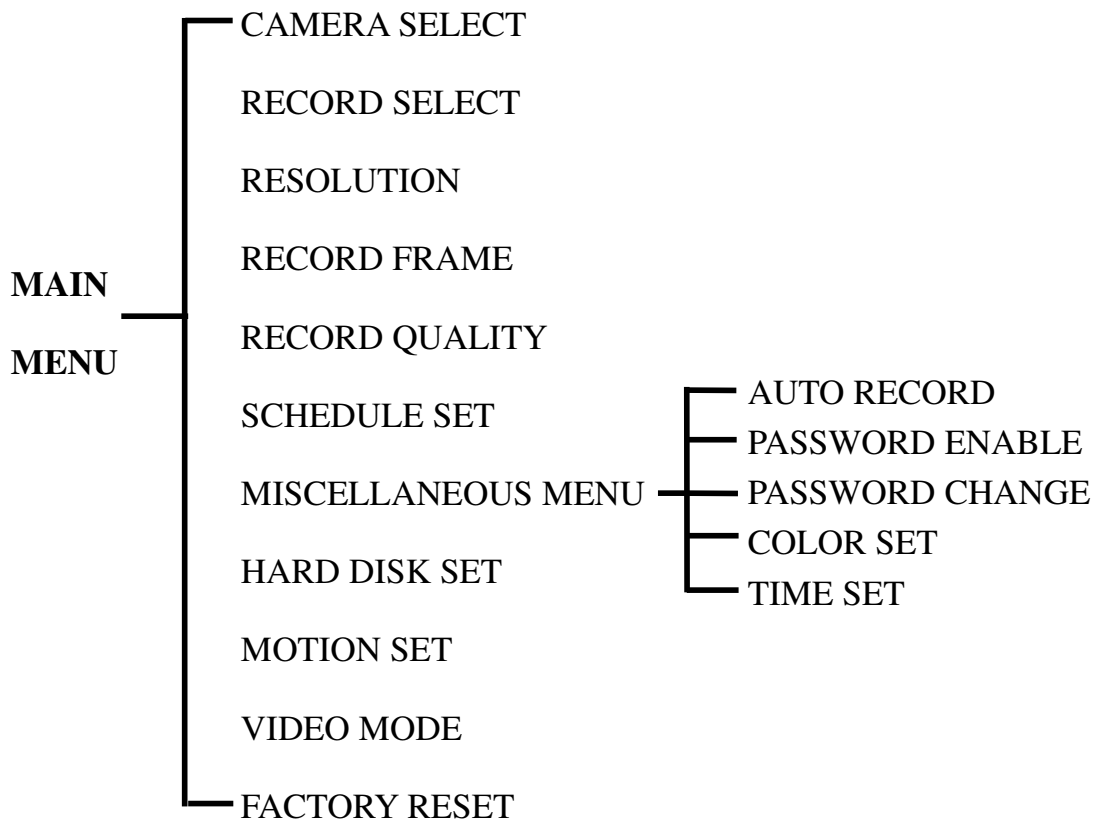
Bottom right: Date and Time

Bottom left: System status. (*Refer to 6.1 Start Recording*)

Chapter 5: DVR Setup

5.1 Setup Menu

Menu Directory





[Menu]: enter system menu

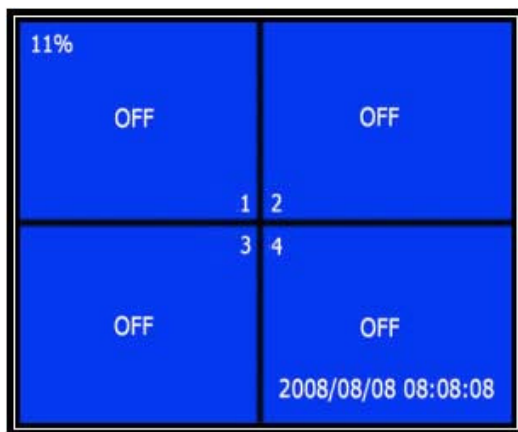
Note: If you are recording to enter Menu you need to push stop button to stop recording first.

[Up] and [Down]: move the cursor

[SEL]: select/modify settings

[Menu]: press again to exit

5.2 Camera Select



The DVR system can display 4 camera feeds in one picture (Quad Mode).

You can configure which cameras are displayed.

Press [SEL] to modify setting, or press [**CH1**], [**CH2**], [**CH3**] and [**CH4**] to select each channel separately.

If a channel is disabled, the system will display “**OFF**” on the monitor, and this channel will not be selected to record. (*Refer to 5.3 Record Select*)

5.3 Record Select

Configure which channels you want to record.

Note: If no channels are selected, an error message will appear briefly on the screen when record is selected.

5.4 Resolution

There are two resolutions for video recording:

EACH Mode:

The DVR compresses and records each video channel separately so you can enlarge a single channel to full screen display and still be recording on all channels. You can also record on specific channels, for example, you can turn off the recording function of CH1 and CH2 and then the system will only record video on CH3 and CH4.

Press [**CH1**], [**CH2**], [**CH3**], and [**CH4**] to enlarge relative channel to full screen display.

In **EACH Mode** you can use the **Auto Switch Function**.

Auto Switch Function:

When the system is in live mode or recording mode, press the [**QUAD**] button and hold for three (3) seconds to make each video channel enlarge to full screen in sequence.

The full screen view of each channel will be displayed for three (3) seconds, including Quad view.

The switch will last until any button is pushed.

For example, [**■ Stop**] will stop the switch and may stop the recording depending on Record Schedule Settings (*5.7 Schedule Set*).

QUAD Mode:

The DVR will compress and record all 4 video channels into one file, therefore, you cannot enlarge a single channel to full screen in play back mode or live monitoring mode.

Auto Switch Function is not available in QUAD Mode.

5.5 Record Frame

Record frame will affect the movement of objects in recorded video. More frames per second gives smoother movement and uses more hard disk space.

System default value is 30fps (frames per second) for NTSC (PAL is 25fps), which means the system will record 30 frames per second shared by all cameras. You can set frame rate for NTSC to 30,15,10,7,5,4,3,2,1 frames per second (PAL is 25,12,8,6,4,3,2,1)

5.6 Record Quality

There are three levels of recording quality: High, Normal, and Low.

Higher quality uses more hard drive space.

Record frame rate, record quality and available hard drive space will all affect the total recording time of the DVR system.

5.7 Schedule Set

You can set the video recording method by Time and Motion Detection Triggered Recording.



“-” No Recording

“T” Time (System Default)

“M” Motion Detection Triggered

[▲Up] and [▼Down]: To move the cursor

[←SEL]: To modify record method

Numbers along middle indicate the 24 hours of a day

For example:

If you want to record by motion detection during 3am to 6am, please set the time points (3, 4, 5, 6) from to be “M”; if you want to continuously record during 7am to 12 noon, please set the time points (7, 8, 9, 10, 11, 12) to be “T”.

Both of the two recording methods need to be triggered by pressing [●REC] button. After pressing [●REC] button, if the schedule is set to be “T” at that time, DVR will start to record immediately; if the schedule is set to be “M”, DVR will not start record until motion is captured and detected by system.

Force Record:

When DVR is set to record by motion detection, DVR will not record if there is no motion. If you want to record immediately, please press [●REC] button and hold for 3 to 5 seconds, DVR will start force record.

5.8 Miscellaneous Menu-Auto Record

When the function is set to “ON”, DVR will be awaked to record automatically by record schedule if DVR is without any manual operation in five (5) minutes.

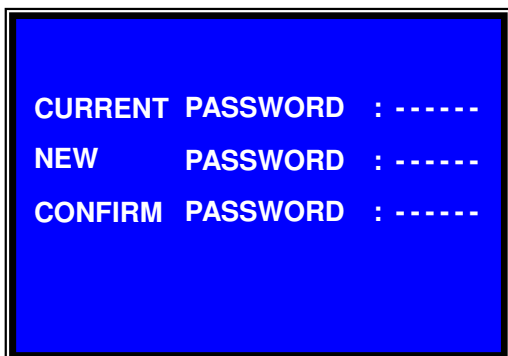
When you choose “OFF”, DVR will not record until you press the [●REC] button.

5.9 Miscellaneous Menu-Password Enable

When this option is set to be “ON”, you will be required to enter the password if you want to stop recording or enter menu.

System default password: Press [CH1] button six (6) times.

5.10 Miscellaneous Menu-Password Change



All keys can be used as a password key **except** the [Menu] key, which is used to exit.

If you forget your password, please refer to 5.16 Factory Reset.

5.11 Miscellaneous Menu-Color Set



HUE: 0-99
 SATURATION: 0-99
 CONTRAST: 0-99
 BRIGHTNESS: 0-99

[▲Up] and [▼Down]: move the cursor
 [REW]: Decreases value
 [FWD]: Increases value
 [CH1-CH4, QUAD]: Select channel
 [Menu]: Exit

5.12 Miscellaneous Menu-Time Set



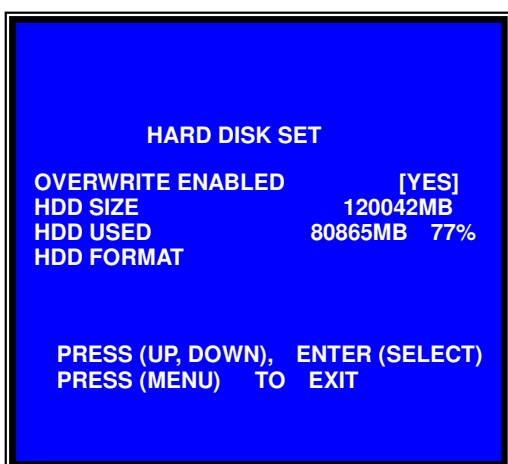
Configure system date and time:

[▲Up] and [▼Down]: move the cursor

[←SEL]: modify the value

[Menu]: exit and save

5.13 Hard Disk Set



OVERWRITE ENABLED:

If you choose “**YES**”, recording continues and overwrites oldest previous recordings when the hard drive is full.

If you choose “**NO**”, the recording process will stop when the hard drive is full.

HDD SIZE:

Indicates the total capacity of the hard drive installed in the DVR.

HDD USED:

Indicates the space used on the hard drive and the percentage of hard drive space being used.

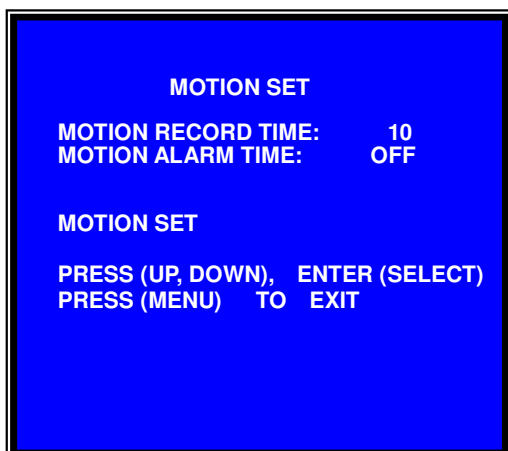
HDD FORMAT:

If you format the hard drive, it will erase all the data on the hard drive.

You need to input your password when you want to format the HDD.

Note: When you install a new hard drive in the DVR, you use this function to format the hard drive.

5.14 Motion Set



MOTION RECORD TIME:

This number indicates how many seconds the motion detection recording continues after a motion triggered event ends.

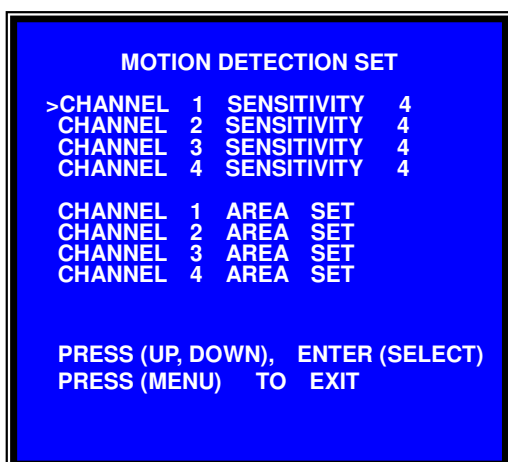
MOTION ALARM TIME:

This number indicates how many seconds the buzzer inside the DVR will sound after the DVR has been triggered by motion.

CONT: Continuous alarm until press any key to stop.

OFF: No alarm

MOTION SET:



SENSITIVITY:

Use [**▲Up**] and [**▼Down**] button to select the channel you want to modify, press [**←SEL**] to adjust sensitivity of motion detection on each channel.

High (1-----9, OFF) Low

When it's "**OFF**", the channel cannot be triggered by motion.

AREA SET:

Use [**▲Up**] and [**▼Down**] buttons to select the channel you want to modify, press [**←SEL**] button to enter the sensitive area of each camera. The picture of the selected channel is divided into 144(12*12) blocks, press [**REW**] to move left, press [**FWD**] to move right, press [**▲Up**] and [**▼Down**] to move the cursor up and down, press [**←SEL**] to set the block active or not.

When the block is transparent, it's active to record. When the block is covered by shadow, it is not active, and motion in this area will NOT be detected.

Make sure *Record Schedule* is set to Motion for the times required.

5.15 Video Mode

Select NTSC or PAL video source.

5.16 Factory Reset

Press [**←SEL**] button to reload factory defaults, then the DVR will reboot, all custom settings (including password) will be restore to factory default.

Caution: There is no confirming dialog box for this selection after you press [←SEL**] button, please be patient!**

If you forget your password, please keep the system on main screen, and then press [**Pause**] button ten (10) times, the DVR will reset the system. Then the default password will be: [**CH1**] button six (6) times.

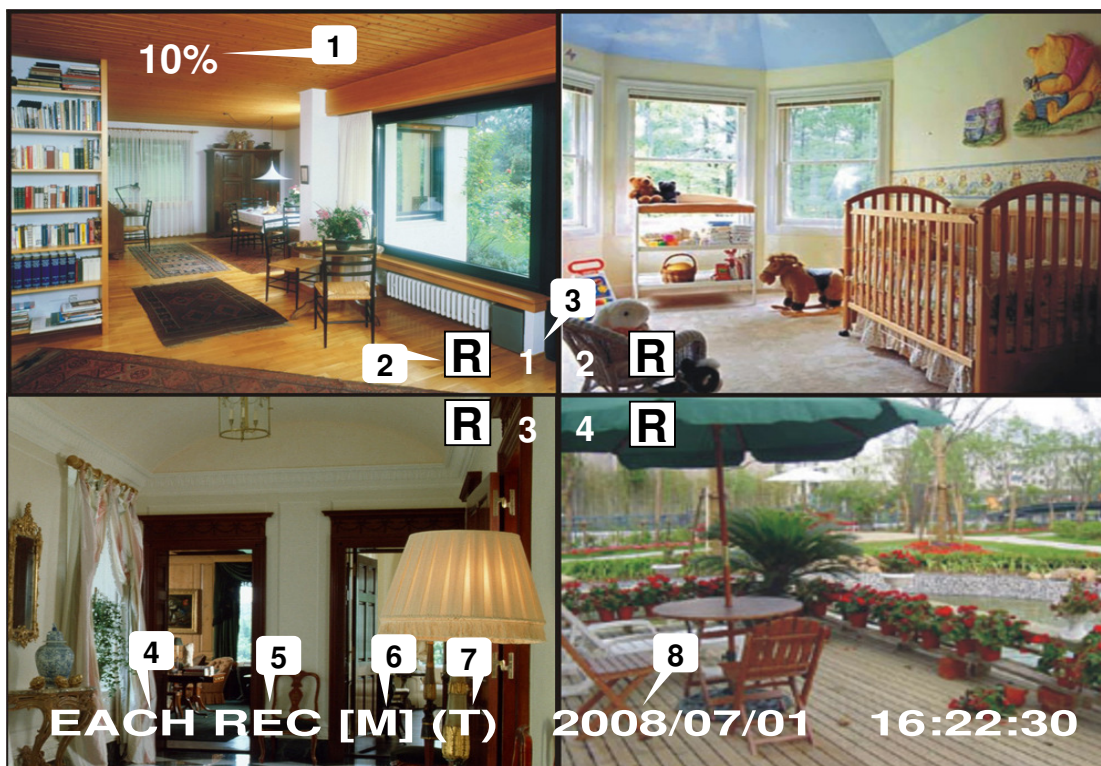
If the DVR is recording, please unplug the power supply and uninstall the HDD, then connect power to boot DVR and press [**Pause**] button for ten (10) times.

Chapter 6: Recording

6.1 Start Recording

Press [**●REC**] to start recording (as set in 5.7 *Schedule Set*).

DVR will display system information on screen.



1. Hard Drive Usage (Displayed as a percentage)
2. Recording symbol (channel is currently recording)
3. Channel Number
4. Record Resolution (QUAD or EACH)
5. Status (REC, Play, FF1, FF2, FF3, REW, PAUSE)
6. HDD Info. ([M] Master Hard disk)
7. Record Schedule: (T) Continuous (M) Motion Detection (-) No Recording
8. The date and time on the DVR

6.2 Stop Recording

Press [■Stop] button to stop recording. If you have already activated the password protection, you need to input the password.

6.3 Recording Time on Hard Drive

Estimated record time based on a 120GB Hard Drive (Quad Mode) in hours:

System	Quality	Frame Rate	30	15	7	1
NTSC	HIGH	20 K Bytes	58	117	251	1748
	NORMAL	15 K Bytes	78	155	332	2330
	LOW	12 K Bytes	97	194	416	2913

System	Quality	Frame Rate	25	12	6	1
PAL	HIGH	20 K Bytes	70	146	291	1748
	NORMAL	15 K Bytes	93	194	388	2330
	LOW	12 K Bytes	117	243	485	2913

You can estimate recording hours by the formula:

$$\frac{120 \text{ (G Byte)} \times 1024 \text{ (M Byte)} \times 1024 \text{ (K Byte)}}{15 \text{ (Kbyte/frame)} \times 7 \text{ (frame/sec.)} \times 60 \text{ (sec.)} \times 60 \text{ (min.)}}$$

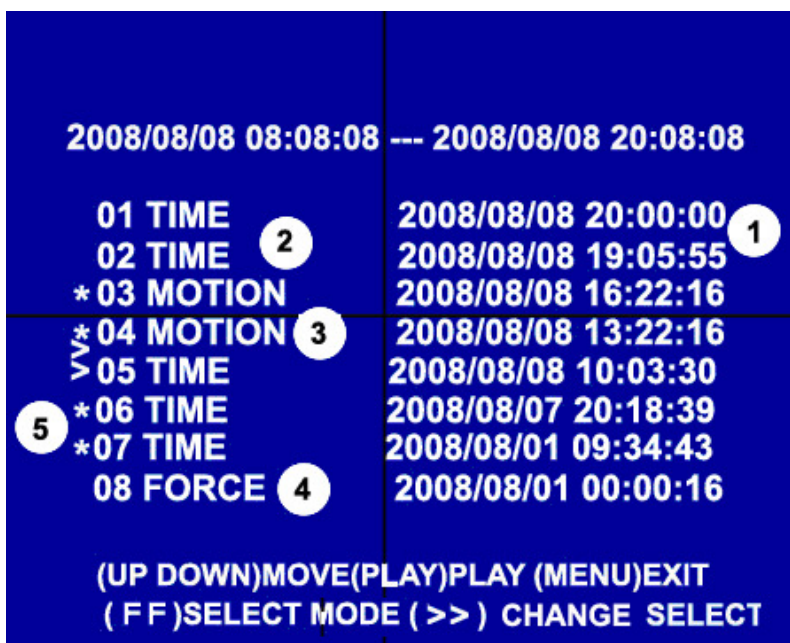
Estimated time would be 332 Hours.

Chapter 7: Playback

Press [▶Play] button to play the latest recording.

During playback, press the [☰Menu] button to list all recorded video clips from the hard drive. Newest video will be listed at the top.

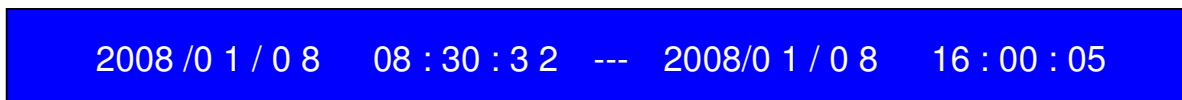
Press [▲Up] and [▼Down] to move the cursor and select an event, press [▶Play] button to start playback.



1. Starting time of the event	2. TIME: continuous recording
3. MOTION: Motion Triggered event	4. FORCE: Force Record event
5. "*" marks un-played video recording	

You can also play recorded video by searching exact date and time using the following steps:

1. Press [FWD] button to change the select mode
2. Press [▲Up] and [▼Down] button to select date starting time or ending time
3. Press [←SEL] to edit time value
4. Press [▶Play] to play the video



Search Date and Time

Chapter 8: USB Programming

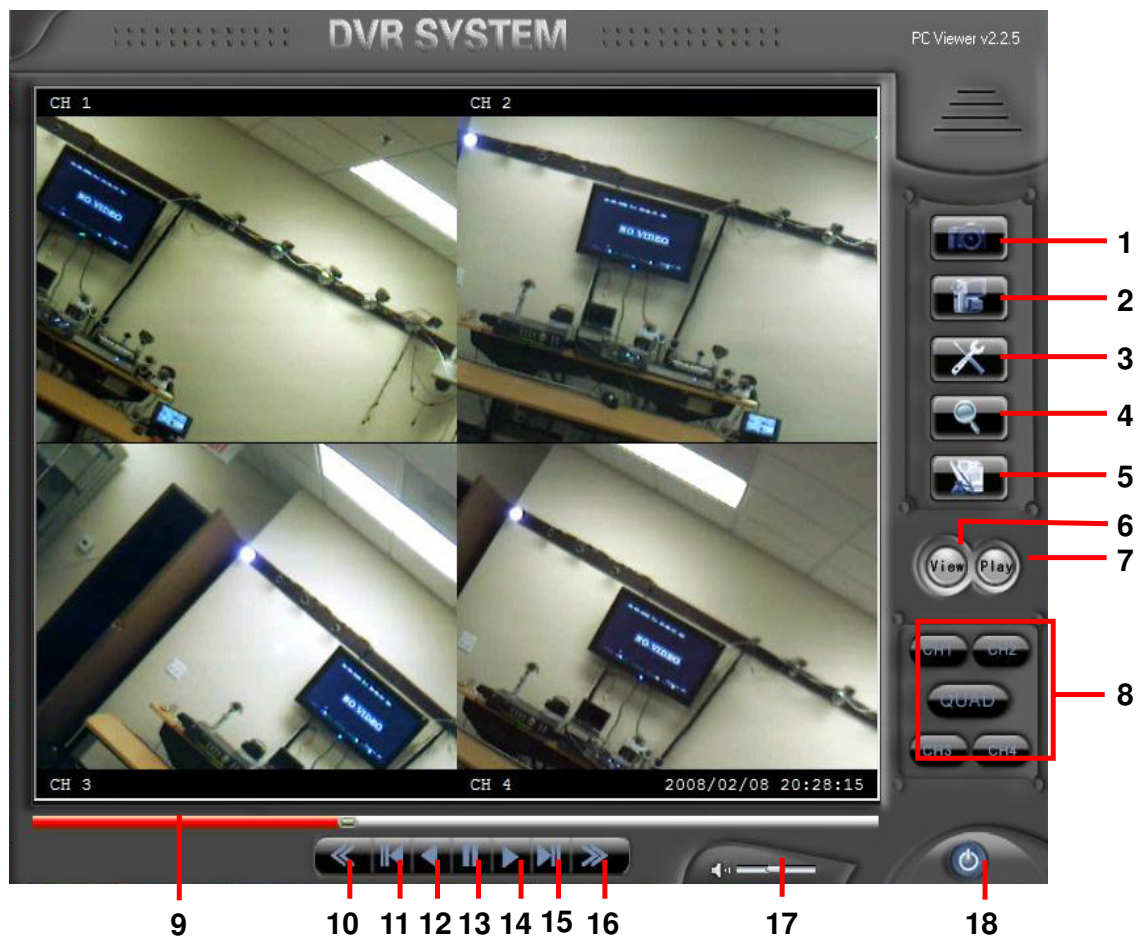
By connecting the DVR to a PC you can use PC Viewer software to play back and backup DVR recorded video through the USB 2.0 port.

8.1 PC Viewer Program

1. Put the USB Driver Program CD into your CD-ROM Drive
2. Open CD directory
3. Double click on the "PCViewerInstall.exe" file to install the PC Viewer software
4. Run the installed PC Viewer program

PC Viewer will detect the hard drive installed inside DVR automatically when you connect the USB cable from DVR to PC.

8.2 Program buttons





Item	Remark
1. Capture picture	Save an image of current frame
2. Save video clip	Save DVR's video clip to PC in .mys/.avi file
3. Directory Setting	Change location of capture directory On PC
4. Time Search	Search for time file on DVR hard disk
5. DVR event list	Open event list recorded in DVR
6. DVR Mode*	To switch working mode between PC viewer mode and DVR viewer mode
7. PC Mode*	
8. Channel selection keys	CH1, CH2, CH3, CH4, QUAD
9. Playing scroll bar	
10. Fast reverse	Play backward at fast speed
11. Previous frame	Move to previous frame
12. Reverse	Play backward at normal speed
13. Pause	Pause playing
14. Play	Play forward at normal speed
15. Next frame	Move to next frame
16. Fast forward	Play forward at fast speed
17. Volume scroll bar	Not available for this model
18. Exit	Exit PC Viewer

★ **DVR Mode: play video clip save in DVR's HDD.**

★ **PC Mode: play video clip (.mys file) save in PC**

8.3 PC Backup

Press  button to open the DVR recorded event list, and then select an event, press  to start backup. The video file you want to save in PC can be “.avi” file or “.mys” file.

Chapter 9: Specifications

ITEM		DESCRIPTION	NOTE
Video Format		NTSC / PAL	
Operation System		None	Stand-alone
Camera Input Channel		4 channel Composite BNC	
Video Output Channel		1 channel Composite BNC	
Display Frame Rate	NTSC	120 frames/second	4x30 frames/second
	PAL	100 frames /second	4x25 frames/second
Recording Frame Rate	NTSC	Max.30 fps (Quad)	Quad Mode
	PAL	Max.25 fps (Quad)	Quad Mode
Recording Frame Rate (Each Mode)	NTSC	Each Channel = 30 fps ÷ Number of Cameras	Max. 30 frames/s (Total)
	PAL	Each Channel = 25 fps ÷ Number of Cameras	Max. 25 frames/s (Total)
Record Mode		Continuous, Time Schedule, Motion Triggered.	
Resolution	Display	NTSC: 720x480 PAL: 720x576	
	Record	NTSC: 320x112, 640x224 PAL : 320x136, 640x272	Quad: 640x224 (total) Each: 640x224
Video Compression Format		Motion-JPEG (12-20K bytes/frame)	Low : 12K Byte Normal: 15K Byte High : 20K Byte
HDD Support		Over 500G Byte	ATA -100 Interface
Estimated Record Length		120GB Hard drive @ 7 frames per second @ Normal Quality (120x1024x1024 Kbyte) ÷ (7x15x60x60) = 332 Hours	
USB		For PC playback & backup	USB 2.0
Remote Control		Included	
Search	Method	Time、Date、Event	
	Full Screen	YES	
Dimension (L × W × H)		250 × 235 × 38mm (10 x 9.25 x 1.5in)	

Chapter 10: Appendix

10.1 System Connection Diagram

Note: refer to 2.2 Rear Panel on page 2 for connections.



10.2 DVR Accessories (included)



Power Cord

The shape of the plug might be different for different countries or regions.



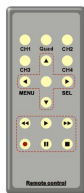
Power Adaptor



User's Manual



CD-ROM



Remote Controller



USB Cable

Q-SEE Product Warranty

Thank you for choosing our products.

All of our products users have a conditional free warranty repair service for hardware within 12 months starting from purchase date, and a free exchange service within one month (valid for manufacturing defects). Permanent upgrading service is provided for the software.

Liability Exclusions:

Any product malfunction, abnormalities in operation or damage caused by following reasons are not within the free service scope of our company. Please select payable service.

- (1) Equipment damage caused by improper operation
- (2) Improper environment and conditions in/on which the equipment operates, e.g., improper power, environment temperature, humidity and lightening strike etc. that cause equipment damage.
- (3) Damage caused by acts of nature: earthquake and fire etc.
- (4) Equipment damage caused by the maintenance of personnel not authorized by our company.
- (5) Product sold over 12 months ago.

In order to provide various services to you, please complete registration procedure after you purchase the product. Cut off or copy User's Information Card and fax or mail it to us after the card is filled in. You can also register the product by going to the www.q-see.com website and clicking on the Register link.

Customer Information Card

User's Name	Mr./Mrs.
Company Name	
Postal Address	
Postal code	
Phone Number	
E-mail	
Model Number of Product	
Serial Number of Product	
Purchase Date	
Distributor	